

CONTENTS

VOLUME 14 (1972)

The mutagenic effects of new purine and pyrimidine analogues on phage T4 by S. I. ALIKHANIAN, E. S. PIRUZIAN AND E. G. MUGNETSIAN (Moscow, U.S.S.R.) (Rec'd July 7th, 1971)	1-11
Chloramphenicol rescue of γ -irradiated <i>lon</i> and <i>exrA</i> mutants of <i>Escherichia coli</i> by N. J. MARSHALL AND N. E. GILLIES (London, Great Britain) (Rec'd July 6th, 1971)	13-21
Synergistic effect of an <i>Escherichia coli</i> mutator gene on mutagenesis by ultraviolet radiation and by alkylating agents by RUTH F. HILL (Toronto, Ont.) (Rec'd July 20th, 1971)	23-31
Further cytological studies on G ₁ X-rayed primary roots of <i>Vicia faba</i> : chromosome aberrations, mitotic frequency, and multiple fixation by MORTON W. MILLER AND JOYCE D. COLLAIACE (Rochester, N.Y.) (Rec'd Sep. 13th, 1971)	33-41
Irradiation UV des cellules polaires de l'oeuf chez <i>Drosophila melanogaster</i> II. Estimation du nombre de cellules polaires à l'origine de la lignée germinale par CLAUDE PRUDHOMMEAU ET GINETTE LAUGÉ (Orsay, France) (Reçu le 20 août, 1971)	43-52
Irradiation UV des cellules polaires de l'oeuf chez <i>Drosophila melanogaster</i> III. Étude de la recombinaison mitotique induite chez le mâle par CLAUDE PRUDHOMMEAU (Orsay, France) (Reçu le 19 août, 1971)	53-64
Einfluss der Geschlechtschromosomen auf die Strahlenempfindlichkeit verschiedener Zelltypen von <i>Drosophila melanogaster</i> von URS LEUTHOLD (Zürich, Schweiz) (Eingeg. den 16. Sep. 1971)	65-81
Die cytogenetische Wirksamkeit des Butazolidin ^R im Lymphocytentest in Abhängigkeit von der Proteinkonzentration des Kulturmediums von H. F. WISSMÜLLER (Erlangen-Nürnberg, Deutschland) (Eingeg. den 16. Sep. 1971)	83-94
Chromosomenanalysen in Zellkulturen des chinesischen Hamsters nach Applikation von Bleiacetat von M. BAUCHINGER UND E. SCHMID (München-Neuherberg, Deutschland) (Eingeg. den 25. Aug. 1971)	95-100
Morphogenic effects of halogenated thymidine analogs on <i>Drosophila</i> II. Incorporation of 5-bromodeoxyuridine into DNA by R. M. RIZKI, H. A. DOUTHIT AND T. M. RIZKI (Ann Arbor, Mich.) (Rec'd Aug. 23rd, 1971)	101-111
Protein and RNA synthesis in radiation-sensitive strains of yeast by D. K. MYERS (Chalk River, Ont.) (Rec'd Sep. 29th, 1971)	112-114
High mutagenic effect of phenethyl nitrogen mustards and ethyleneiminopyrimidines in <i>Aspergillus nidulans</i> by S. P. KOVALENKO (Kiev, U.S.S.R.) (Rec'd Sep. 28th, 1971)	115-118
Survival and chlorophyll mutation in <i>Triticum durum</i> plants raised from aged seeds by C. FLORIS AND P. MELETTI (Pisa, Italy) (Rec'd Sep. 28th, 1971)	118-122
True or apparent inhibition of nucleic acid synthesis by the chromosome-breaking purine derivatives adenine and 8-ethoxycaffeine by G. ODMARK (Uppsala, Sweden) (Rec'd Sep. 23rd, 1971)	123-126
Dominant-lethal effects of cyclohexylamine in C57 Br/Fe mice by KYLE W. PETERSEN, MARVIN S. LEGATOR AND FRANK H. J. FIGGE (Washington, D.C., and Baltimore, Md.) (Rec'd Oct. 12th, 1971)	126-129
The mutagenicity of mammalian cells of pyrimidine nucleoside analogs by ELIEZER HUBERMAN AND CHARLES HEIDELBERGER (Madison, Wisc.) (Rec'd Oct. 7th, 1971)	130-132
Ultraviolet photochemistry of DNA in mouse spermatozoa by M. L. MEISTRICH AND A. M. RAUTH (Toronto, Ont.) (Rec'd Aug. 17th, 1971)	133-136

Mutations induced in <i>Haemophilus influenzae</i> by transformation with nitrosoguanidine-treated DNA by R. F. KIMBALL AND JANE K. SETLOW (Oak Ridge, Tenn.) (Rec'd Aug. 23rd, 1971)	137-146
Mutation of <i>col Ib</i> factors by M. DERYŁO AND Z. LORKIEWICZ (Lublin, Poland) (Rec'd Feb. 2nd, 1971)	147-153
Effect of pH and temperature on nitrosamide-induced mutation in <i>Escherichia coli</i> by S. NEALE (London, Great Britain) (Rec'd Aug. 23rd, 1971)	155-164
Action of acriflavine on the growth and mutation in yeast II. Kinetic study on the effect of glutamate on the respiration-deficient mutation induction by YUTAKA ARAKATSU (Kobe, Japan) (Rec'd Oct. 4th, 1971)	165-184
Fractional and complete mutations following irradiation of <i>Drosophila</i> spermatids in nitrogen or in oxygen by E. R. MUÑOZ (Buenos Aires, Argentina) (Rec'd Oct. 19th, 1971)	185-192
Irradiation UV des cellules polaires de l'oeuf chez <i>Drosophila melanogaster</i> IV. Etude d'une mutation dominante semilétale instable localisée sur le IIIème chromosome par CLAUDE PRUDHOMMEAU (Orsay, France) (Reçu le 20 sept., 1971)	193-205
Mutations et altérations dans la transmission des informations génétiques chez la Drosophile par injection d'extraits de chrysalide diapausantes (<i>Pieris brassicae</i>) traitées par des ptérines par C. L'HÉLIAS (Gif-sur-Yvette, France) (Reçu le 30 sept., 1971)	207-224
Repair replication in mammalian cells after X-irradiation by R. B. PAINTER AND B. R. YOUNG (San Francisco, Calif.) (Rec'd Aug. 12th, 1971)	225-235
Survival response of asynchronous and synchronous Chinese hamster cells exposed to fluorescent light following 5-bromodeoxyuridine incorporation by E. BEN-HUR AND M. M. ELKIND (Upton, N.Y.) (Rec'd Aug. 25th, 1971)	237-245
Mutation frequency decline for streptomycin-resistant mutations induced by ultraviolet light in <i>Escherichia coli</i> B/r by C. H. CLARKE AND R. F. HILL (Downsview, Ont., Canada) (Rec'd Sept. 8th, 1971)	247-249
Differential sensitivity of immature and mature oocytes of <i>Drosophila melanogaster</i> to the induction of dominant lethals following treatment by mono- and polyfunctional aziridine analogues by E. VOGEL (Freiburg/Br., Germany) (Rec'd Nov. 9th, 1971)	250-253
Material mutation rates in the house mouse: estimates for recessive visible mutations by G. SCHLAGER (Lawrence, Kan.) (Rec'd Nov. 3rd, 1971)	254-258
Repair of single-strand breaks in DNA and recovery of induced mutagenic effects during the storage of ethyl methanesulphonate-treated barley seeds by J. VELEMÍNSKÝ, S. ZADRAŽIL AND T. GICHNER (Prague, Czechoslovakia) (Rec'd Nov. 16th, 1971)	259-261
Mutagenicity of hycanthone in mammalian cells by D. CLIVE, W. G. FLAMM AND M. R. MACHESKO (Research Triangle Park, N.C.) (Rec'd Nov. 25th, 1971)	262-264
The repair of ³² P decay-damaged phage λ in various radiation-sensitive strains of <i>E. coli</i> K12 by BARRY W. GLICKMAN, KATHERINE J. WALKER AND ARTHUR RÖRSCH (Rijswijk/Leiden, The Netherlands) (Rec'd Oct. 8th, 1971)	265-270
A comparison of chemically induced reversion patterns of <i>Salmonella typhimurium</i> and <i>Saccharomyces cerevisiae</i> mutants, using <i>in vitro</i> plate tests by DAVID J. BRUSICK AND ERROL ZEIGER (Washington, D.C.) (Rec'd Dec. 9th, 1971)	271-275
Studies on <i>Agrobacterium tumefaciens</i> . Conditions for mutagenesis by N-methyl-N'-nitro-N-nitrosoguanidine and relationships of <i>A. tumefaciens</i> mutants to crown gall tumor induction by R. A. LANGLEY AND C. I. KADO (Davis, Calif.) (Rec'd Nov. 24th, 1971)	277-286
The relative frequency of induced mutations recovered from <i>Drosophila melanogaster</i> gametogenic stages irradiated at different dose rates by ROBERT R. RINEHART AND WILLIAM R. LEE (San Diego, Calif. and Baton Rouge, La.) (Rec'd October 27th, 1971)	287-297
Studies on a recombination-deficient mutant of <i>Drosophila</i> II. Response to X-rays and alkylating agents by W. A. F. WATSON (Aberdeen, Great Britain) (Rec'd Nov. 9th, 1971)	299-307

The kinetics of X-ray induced somatic crossing-over in <i>Drosophila melanogaster</i> and the effects of dose fractionation by J. R. MERRIAM AND W. E. FYFFE (Los Angeles, Calif.) (Rec'd Nov. 24th, 1971)	309-314
Enhancing effect of lucanthone (miracil D) on the frequency of X-ray-induced chromosome loss in <i>Drosophila</i> male germ cells by RAYMOND U (Durham, N.C.) (Rec'd Nov. 9th, 1971)	315-324
The effect of pH on <i>N</i> -alkylnitrosoamide mutagenesis in <i>Drosophila</i> by H. O. CORWIN AND WILLIAM P. HANRATTY (Pittsburgh, Pa.) (Rec'd Nov. 25th, 1971)	325-330
Studies of irradiated mouse populations IV. Effects on productivity in the 7th-18th generations by K. G. LÜNING (Stockholm, Sweden) (Rec'd Oct. 27th, 1971)	331-344
Age sensitivity of human chromosomes to alkylating agents by N. P. BOCHKOV AND N. P. KULESHOV (Moscow, USSR) (Rec'd Nov. 12th, 1971)	345-353
The role of metabolic cooperation in selection of hypoxanthine guanine-phosphoribosyl-transferase (HG-PRT)-deficient mutants from diploid mammalian cell strains by A. A. VAN ZEELAND, M. C. E. VAN DIGGELEN AND J. W. I. M. SIMONS (Leiden, The Netherlands) (Rec'd Nov. 2nd, 1971)	355-363
A theoretical study on spontaneous mutation rate by S. KONDO (Osaka, Japan) (Rec'd Aug. 3rd, 1971)	365-374
Recombination in <i>Escherichia coli</i> V. Genetic analysis of recombinants from crosses with recipients deficient in ATP-dependent exonuclease activity by P. G. DE HAAN, W. P. M. HOEKSTRA AND C. VERHOEF (Utrecht, The Netherlands) (Rec'd Nov. 12th, 1971)	375-380
The induction and characterisation of cell wall mutants of <i>Chlamydomonas reinhardtii</i> by J. HYAMS AND D. R. DAVIES (Norwich, Great Britain) (Rec'd Dec. 13th, 1971)	381-389
Cytological effects of the mercurial fungicide Panogen 15 on <i>Tradescantia</i> and <i>Vicia faba</i> root tips by M. AHMED AND W. F. GRANT (Quebec, Canada) (Rec'd Dec. 15th, 1971)	391-396
Mutant aminopeptidases in <i>Pisum</i> II. Nuclear gene control of a mitochondrial isozyme by J. G. SCANDALIOS AND M. A. CAMPEAU (East Lansing, Mich.) (Rec'd Dec. 9th, 1971)	397-403
Cytological aberrations produced by methotrexate in mouse ascites tumours by C. RODRIGUEZ MURCIA AND J. J. ARROYO NOMBELA (Madrid, Spain) (Rec'd Nov. 24th, 1971)	405-412
Unscheduled DNA synthesis in human leucocytes after exposure to UV light, γ -rays and chemical mutagens by J. M. CLARKSON AND H. J. EVANS (Edinburgh, Great Britain) (Rec'd Nov. 16th, 1971)	413-430
The induction of 8-azaguanine-resistant mutants in cultured Chinese hamster cells by ultraviolet light: the effect of changes in postirradiation conditions by C. F. ARLETT AND S. A. HARCOURT (Brighton, Great Britain) (Rec'd Dec. 3rd, 1971)	431-437
Effect of caffeine on the induction of mutations in Chinese hamster cells by ultraviolet light by J. MORROW (Lawrence, Kan.) (Rec'd Jan. 1st, 1972)	438-440
Locus specificity of mutagens in <i>Drosophila</i> by H. K. JAIN AND P. T. SHUKLA (Edinburgh, Great Britain) (Rec'd Oct. 29th, 1971)	440-442
Absence of chromosome breakage after deoxyribonuclease treatment by W. N. HITTELMAN (San Francisco, Cal.) (Rec'd Jan. 19th, 1972)	443-446
Ultraviolet-killing and photodynamic-killing in mutants of <i>Escherichia coli</i> by A. P. HARRISON JR., J. L. HAFNER AND C. O'BRYAN (Columbia, Mo.) (Rec'd Jan. 25th, 1972)	447-449
Effect of an R factor on resistance of <i>Salmonella typhimurium</i> to radiation and chemical treatment by D. G. MACPHEE (Norwich, Great Britain) (Rec'd Jan. 24th, 1972)	450-453
Author Index	454-455
Errata	455
Subject Index	456-461
Contents	462-464